

Single Pole (One location) or 3-Way (Multi-location) Scene Capable Incandescent/Magnetic Low Voltage or Fluorescent Dimmer Cat. No. DZMX1, 1000VA, 1000W, 450W LED/CFL (Lighted)

120VAC, 60Hz

INSTALLATION INSTRUCTIONS

WARNINGS AND CAUTIONS:

- TO AVOID FIRE, SHOCK, OR DEATH; TURN OFF POWER at circuit breaker or fuse and test that power is off before wiring!
- TO AVOID FIRE, SHOCK, OR DEATH; DO NOT install to control a receptacle, a motor or a transfer operated appliance.
- To be installed and/or used in accordance with electrical codes and regulations.
- If you are unsure about any part of these instructions, consult an electrician.
- Use ONLY with the appropriate Advance Transformer 120V Mark 10[™] Powerline or Lutron Tu-Wire® electronic ballasts for controlling the specific fluorescent lamps in Fluorescent Mode.
- Use with LED, CFL, incandescent, magnetic low voltage, fluorescent, or 120V halogen fixtures only. Use a Leviton electronic low voltage dimmer to control electronic (solid state) low voltage transformers. When retrofitting Mark 10[™] Powerline dimming ballasts into fixtures that originally had Instant Start ballasts, the sockets MUST be replaced with Rapid Start sockets to allow proper dimmer operation
- and prevent damage to the dimmer ballast. Refer to the instructions provided with the ballast.
- Decora® Z-Wave® control dimmers are not compatible with standard 3-way or 4-way switches. They must be used with compatible Vizia +® matching or coordinating remotes for multi-location dimming. · Maximum wire length from dimmer to all installed remotes cannot exceed 300 ft.
- Dimmer may feel warm to the touch during normal operation.

INTRODUCTION

Leviton's Decora® Z-Wave® control components are designed to communicate with each other via Radio Frequency (RF) to provide remote control of your lighting. In a Z-Wave® network, each device is designed to act as a router. These routers will re-transmit the RF signal from one device to another until the intended device is reached. This ensures that the signal is received by its intended device by routing the signal around obstacles and radio dead spots. This dimmer is compatible with any Z-Wave® enabled network, regardless of the manufacturer and can also be used with other devices displaying the Z-Wave[®] logo

WARNING: TO AVOID FIRE, PERSONAL INJURY OR DEATH DO **NOT USE** the remote for the control of high power heating appliances such as portable heaters. Remember to exercise good common sense when using the Timer features of your remote, especially when scheduling unattended devices. There can be some unexpected consequences if not used with care. For example, an empty coffee pot can be remotely turned on. If that should happen, your coffee pot could be damaged from overheating. If an electric heater is turned on by remote control while clothing is draped over it, a fire could result. DO **NOT USE** the remote for the control of high power heating appliances such as portable heaters. This device will not control lighting that is used with electronic low-voltage and high frequency power supply transformers, nor high pressure discharge lamps (HID lighting). This includes mercury-vapor, sodium vapor and metal halide lamps.

FEATURES

- Soft fade ON/OEE
- Scene capable
- ON/OFF LED and Brightness level LED
- Two way communication BF reliability
- Ease of installation No new wiring
- Compatible with other Z-Wave® enabled devices

TOOLS NEEDED TO INSTALL YOUR DIMMER

Pliers

Ruler

Slotted/Phillips Screwdriver	Electrical Tape
Pencil	Cutters

Changing the color of your Dimmer:

Your device may include color options. To change color of the face proceed as follows:



INSTALLING DIMMER BY ITSELF OR WITH OTHER DEVICES

If installing Dimmer in a single device application, proceed with the INSTALLING YOUR DIMMER section. If installing Dimmer in a multi-device application, proceed as follows:

MULTI-DEVICE APPLICATION

In multi-dimmer installations, the reduction of the dimmer's capacity is required. Refer to the chart for maximum load per dimmer.



MAXIMUM LOAD PER DIMMER FOR MULTI-DEVICE			
Load	Single	Two Devices	More than 2 Devices
Incand	1000W	800W	650W
Mag LV	1000VA	800VA	650VA

MAXIMUM BULB WATTAGE

Low-voltage dimmers are rated in Volt-Amps (VA). The maximum bulb wattage is determined by the efficiency of the transformer in the low-voltage lighting system. Transformer efficiencies will vary from different manufacturers; consider 80% efficient as average. Use the chart to determine maximum bulb wattage for typical transformer efficiency ratings.

MAX	MUM BULB	WATTAGE AT 75	% EFFICIENCY
Rating	Single	Two Gang	More than 2 Gang
1000VA	800W	640W	520W
1000174	00011	04077	32011

MAXIMUM BULB WATTAGE

Mark 10[™] Powerline dimmers are rated in Volt-Amps (VA). The maximum bulb wattage is determined by the efficiency of the Mark 10[™] Powerline ballast. The following table shows the maximum number of ballasts that can be connected to a single dimmer for different Mark 10[™] Powerline ballasts. Also note that the table shows maximum ballasts for multi-gang installations.

Cat. No. DZMX1, 120V, For use with Advance Transformer 120V Mark 10[™] Powerline Electronic Ballasts

Advance Mark 10™	Lamp	Max. #	Ballasts/Dim Multi-gang	mer for
Powerline Part No.	Lamp	Single Gang	Two Ganged	More than 2 Gang
REZ-2Q18-M2-LD	CFM18W/GX24Q	23	18	15
REZ-1T32	CFM26W/GX24Q	32	25	20
REZ-2Q26	CFM26W/GX24Q	17	13	11
REZ-1T32	CFM32W/GX24Q	26	20	16
REZ-1T42	CFM42W/GX24Q	20	16	13
REZ-1Q18-M2-BS	CFQ18W/G24Q	46	37	30
REZ-1Q18-M2-LD	CFQ18W/G24Q	46	37	30
REZ-2Q18-M2-BS	CFQ18W/G24Q	23	18	15
REZ-1T32	CFQ26W/G24Q	32	25	20
REZ-1T42-M2-BS	CFQ26W/G24Q	32	25	20
REZ-1T42-M2-LD	CFQ26W/G24Q	32	25	20
REZ-2Q26	CFQ26W/G24Q	17	13	11
REZ-2Q26-M2-BS	CFQ26W/G24Q	17	13	11
REZ-2Q26-M2-LD	CFQ26W/G24Q	17	13	11
REZ-1Q18-M2-BS	CFTR18W/GX24Q	46	37	30
REZ-1Q18-M2-LD	CFTR18W/GX24Q	46	37	30
REZ-2Q18-M2-BS	CFTR18W/GX24Q	23	18	15
REZ-2Q18-M2-LD	CFTR18W/GX24Q	23	18	15
REZ-1T42-M2-BS	CFTR26W/GX24Q	32	25	20
REZ-1T42-M2-LD	CFTR26W/GX24Q	32	25	20
REZ-2Q26-M2-BS	CFTR26W/GX24Q	17	13	11
REZ-2Q26-M2-LD	CFTR26W/GX24Q	17	13	11
REZ-1T42-M2-BS	CFTR32W/GX24Q	26	20	16
REZ-1T42-M2-LD	CFTR32W/GX24Q	26	20	16
REZ-2T42-M3-BS	CFTR32W/GX24Q	13	10	8

Lutron Tu-Wire®:

To determine total ballast load, add the line current found on the ballast label for all ballasts in the circuit. This will indicate the total load for the control. **INSTALLING YOUR DIMMER**

NOTE: Use check boxes \checkmark when Steps are completed.

WARNING: TO AVOID FIRE SHOCK OR DEATH; TURN Step 1 OFF POWER at circuit breaker or fuse and test that power is off before wiring!



Identifying your wiring application (most common): Step 2 NOTE: If the wiring in your wall box does not resemble any of these configurations, consult an electrician



- 4. First Traveler note color

IMPORTANT: For 3-Way applications, note that one of the screw terminals from the old switch being removed will usually be a different color (Black) or labeled Common Tag that wire with electrical tape and identify as the common (Line or Load) in both the dimmer wall box and remote wall box.

Preparing and connecting wires: Step 3

Pull off pre-cut insulation from dimmer leads. Make sure that the ends of the wires from the wall box are straight (cut if necessary). Remove insulation from each wire in the wall box



- Pull off pre-cut insulation from dimmer leads.
- Make sure that the ends of the wires from the wall box are straight (cut if necessary).
- · Remove insulation from each wire in the wall box as shown.
- For Single-Pole Application, go to Step 4a.
- For 3-Way Coordinating Remote (no LEDs) Application, go to Step 4b.

WARNINGS AND CAUTIONS

- failure due to overcurrent, use a transformer that incorporates thermal protection or a fuse at the primary windings.
- Becommended minimum wall box depth is 2-1/2"
- Use this device WITH COPPER OR COPPER CLAD WIRE ONLY.
- enhance dimmer performance.
- Not for use with Vizia RF® lighting systems
 - COMBINATION CHART 2 - #12 w/ 1 or 2 #16 or #18 1 - #14 w/ 1 to 4 #16 or #18 2 - #14 w/ 1 to 3 #16 or #18





LOW-VOLTAGE TRANSFORMER.

5/8"



(measure bare

wire here)



















DI-000-DZMX1-02A

• When magnetic low voltage circuits are operated at a dim level, with all lamps inoperative, excess current may flow through the transformer. To avoid possible transformer

• Use with compatible dimmable LED, CFL bulbs, incandescent or 120V halogen fixtures only. For a list of compatible LED and CFL bulbs refer to www.leviton.com. • When multiple bulbs are used with one dimmer DO NOT mix bulb types. All bulbs shall be either LED; CFL or incandescent. Using the same make/model of each bulb will





NOTE: The dimmer **must** be installed in a wall box that has a Load connection. The matching remote must be installed in a wall box with a Line Hot connection and a Neutral connection. A Neutral wire to the matching remote needs to be added as shown.

If you are unsure about any part of these instructions, consult an electrician.

NOTE: Maximum wire length from dimmer to all installed remotes cannot exceed 300 ft (90 m)

WIRING MATCHING REMOTE (wall box with line hot connection):

Connect wires per WIRING DIAGRAM as follows:

- Green or bare copper wire in wall box to Green terminal screw. Line Hot (common) wall box wire identified (tagged) when removing old switch and First Traveler to Remote terminal marked BK.
- Second Traveler wall box wire from dimmer to remote terminal screw marked "YL/RD" (note wire color). This traveler from the remote must go to Yellow/Red dimmer lead.

 Line Neutral wall box to remote terminal screw marked "WH". WIRING DIMMER (wall box with load connection): Connect wires per WIRING DIAGRAM as follows:

- · Green or bare copper wire in wall box to Green dimmer lead. • Load wall box wire identified (tagged) when removing old switch to
- Red dimmer lead. • First Traveler Line Hot to Black dimmer lead.
- Remove Red insulating label from Yellow/Red dimmer lead. Second Traveler wall box wire (note color as above) to
- Yellow/Red dimmer lead. This traveler from the dimmer must go to the terminal screw on the remote marked "YL/RD". Line neutral wall box wire to White dimmer lead.
- Proceed to Step 5.

Step 5 Testing your Dimmer prior to mounting in wall box:

NOTE: If using in a dimmable fluorescent application see Advanced Programming Feature B-4 prior to testing the device.

- · Position all wires to provide room in outlet wall box for device.
- · Ensure that the word "TOP" is facing up on device strap
- Partially screw in mounting screws in wall box mounting holes.

NOTE: Dress wires with a bend as shown in diagram in order to relieve stress when mounting device

Restore power at circuit breaker or fuse. Press pad until locator light is OFF. Lights

should turn ON. If lights do not turn ON, press the right half of the DIM/BRIGHT Bar until the lights brighten.

If lights still do not turn ON, refer to the TROUBLESHOOTING section.



Restore Power: Step 7

Restore power at circuit breaker or fuse. Installation is complete.

NOTE: To include your dimmer into a network, contact Leviton's Techline at 1-800-824-3005 or visit Leviton's website at www.leviton.com

FACTORY DEFAULT

If your dimmer is not responding, or you are unable to control it after you have tried to Include/Exclude it multiple times, it may be necessary to reset the dimmer to its original factory settings. To accomplish this, proceed as follows:

• On the dimmer, engage the air-gap switch (refer to Operation section) and wait 5 seconds. Press the push pad back into the frame and hold push pad until the locator LED turns Amber and then turns Red. The dimmer is now reset. Once the dimmer is reset, it will be

necessary to Re-Include it to a network before it can be used. **CAUTION: SETTING A DEVICE TO A FACTORY DEFAULT DOES** NOT EXCLUDE THAT DEVICE FROM A NETWORK. THE EXCLUSION PROCEDURE MUST STILL BE FOLLOWED TO REMOVE THE DEVICE FROM THE PRIMARY CONTROLLER'S INFORMATION TABLE. FAILURE TO DO SO MAY RESULT IN SYSTEM THAT IS SLOW TO RESPOND, OR MAY FAIL TO RESPOND TO SOME DEVICES.

OPERATION

NOTE: The locator light will illuminate when the load is in the OFF position to facilitate access in the dark. NOTE: If using the dimmer in a 3-wayapplication, the

lights will turn ON at brightness set on dimmer's DIM/BRIGHT bar. The lighting can be controlled from either the dimmer or the remote location.

Push Pad (Default settings)

Turn ON from OFF position: Tap - Lights turn ON to preset level Press and Hold - Lights turn ON to full bright. Turn OFF from ON position: Tap – Lights turn OFF

DIM/BRIGHT Bar

BRIGHTEN:

Press the right half of the DIM/BRIGHT Bar - Lights

brighten to desired level. DIM:

Press the left half of the DIM/BRIGHT Bar - Lights dim to desired level. If you continue to hold, the lights will DIM to

back into place for normal operation

Air-Gap Switch: On the dimmer only, engage the

minimum level and then turn OFF. NOTE: When lights are OFF you can change the light level that the

lights will turn ON to using the DIM/BRIGHT Bar. If there is a power outage, when the power is restored, the lights will

return to the last setting before the power interruption.

Gently press top of push pad air-gap switch by gently pressing the top of the push pad until the bottom lifts completely out of the frame and a click is heard (refer to Figure). LED's will turn OFF. This will stop power to the fixture to replace the bulb. After servicing is complete, press the push pad

Cleaning: Clean with a damp cloth. DO NOT use chemical cleaners.

ADVANCED PROGRAMMING FEATURES

Definition of A Modes

- A-1) Energy Save: Sets the maximum brightness level for energy savings. A-2) Minimum Brightness Level: Sets the minimum dimming level.
- A-3) Preset ON Level: Sets the turn on brightness level regardless of the previous set light level (formerly Dim Lock).

Definition of B Modes

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- B-1) ON Fade Rate: Sets the amount of time in seconds it takes the lights to turn ON to maximum brightness. B-2) OFF Fade Rate: Sets the amount of time in seconds it takes the
- lights to turn OFF from maximum brightness. B-3) LED Options: Sets the time period in seconds the Locator LED and

1 2 3 4 5 6 7

LED Brightness

Display

Brightness display will stay on before extinguishing. B-4) Fluorescent Mode: Allows dimmer to control Mark 10 Powerline dimming ballasts

Definition of LEDs Leftmost LED = LED 1

Rightmost LED = LED 7 NOTES:

- The device will exit programming mode after 3 minutes of inactivity.
- Pressing the push pad at any time during programming will advance the device to the next programming mode.

Program Mode A

To enter Program Mode A: Press and hold the Push Pad and then the right half of the

DIM/BRIGHT Bar (A) for 5 seconds until the Locator LED and leftmost LED (LED 1) begin to blink.

A-1) Upon releasing the Push Pad and the right half of the DIM/BRIGHT Bar (\land), the Locator LED will continue to blink once per second and the rightmost LED will illuminate to display the device is in Program Mode A-1, Energy Save. The default energy save mode is 100% i.e. full bright. To change the Energy Save level, use the DIM/BRIGHT Bar to move the corresponding LED to the desired discrete preset level according to Chart A. By tapping the Push Pad this setting will automatically be saved and the device will advance to the next programming mode, A-2.

Chart A

	onarrA	
When indicator light is at LED #	Light output is at	Energy consumption savings amounts to
7	100%	0%
6	97%	5%
5	95%	8%
4	90%	16%
3	85%	24%
2	80%	29%
1	75%	34%

A-2) The Locator LED will blink 2 times per second to indicate the device is in Program Mode A-2, Minimum Brightness Level. The default Minimum Brightness Level is LED 1. To change the Minimum Brightness Level from 1-50%, use the DIM/BRIGHT Bar. The light output will reflect the minimum brightness level selected. By tapping the Push Pad this setting will automatically be saved and the device will advance to the next programming mode, A-3.

A-3) The Locator LED will blink 3 times per second to indicate Program Mode A-3, Preset ON Level. To change the current Preset ON Level from 1-100%, use the DIM/BRIGHT Bar. If this feature is not desired, press and hold the **left** half of the DIM/BRIGHT Bar (\mathbf{v}) until no LED is lit (default setting). By tapping the Push Pad this setting will automatically be saved and the device will exit Programming Mode A.

Program Mode B

To enter Program Mode B:

Press and hold the Push Pad and then the left half of the DIM/BRIGHT Bar (V) for 5 seconds until the Locator LED and rightmost LED (LED 7) begin to blink

- B-1) Upon releasing the Push Pad and the left half of the DIM/BRIGHT Bar (\mathbf{v}), the Locator LED will continue to blink once per second indicating the dimmer is in Program Mode B-1, ON Fade Rate. To change the ON Fade Rate, use the DIM/BRIGHT Bar to move the LED to the desired preset level according to Chart B. By tapping the Push Pad this setting will automatically be saved and the device will advance to the next programming mode, B-2.
- B-2) The Locator LED will blink 2 times per second to indicate Program Mode B-2, OFF Fade Rate. To change the OFF Fade Rate, use the DIM/BRIGHT Bar to move the LED to the desired preset level according to Chart B. By tapping the Push Pad this setting will automatically be saved and the device will advance to the next programming mode, B-3.

LIMITED 5 YEAR WARRANTY AND EXCLUSIONS

.eviton warrants to the original consumer purchaser and not for the benefit of anyone else that this product at the time of its sale by Leviton is free of defects in materials and workmanship under normal and proper use for five years from the purchase date. Leviton's only obligation is to correct such defects by repair or replacement, at its option. For details visit www leviton.com or call 1-800-824-3005. This warranty excludes and there is disclaimed liability for labor for removal of this product is installed improperly or in an improper environment, overloaded, misused, opened, abused, or altered in any manner, or is not used under normal operating conditions or not accordance with any labels or instructions. There are no other or implied warranties of any kind, including merchantability and fitness for a particular purpose, but if any implied warranty is required by the applicable jurisdiction, the duration of any such implied warranty, including merchantability and fitness for a particular purpose, but if any implied warranty is required by the applicable jurisdiction. The is not liable for incidental, indirect, special, or consequential damages, including without limitation, damage to, or loss of use of, any equipment, lost sales or profits or delay or failure to perform this warranty obligation. The remedies provided herein are the exclusive remedies under this warranty, whether based on contract, tort or otherwise.



LED

LED 1

B-3) The Locator LED will blink 3 times per second to indicate Program Mode B-3, LED Options. To change the LED Options settings, use the DIM/BRIGHT Bar to move the LED to the desired preset setting according to the Chart B-3. By tapping the Push Pad this setting will automatically be saved and the device will advance to the next Programming Mode B-4. Chart B-3

Chart B

FADE ON

0 seconds (instant)

LED	LOCATOR LED TIMEOUT	LED BRIGHTNESS DISPLAY OPTIONS
LED 1	Active	Active
LED 2	Active	Turns off 5 sec. after use
LED 3	Turns off 5 sec. after use	Active
LED 4	Turns off 5 sec. after use	Turns off 5 sec. after use
LED 5	Active	LED Bar active
LED 6	Active	LED Bar turns off 5 sec. after use
LED 7	Turns off 5 sec. after use	LED Bar turns off 5 sec. after use

B-4) The Locator LED will blink 4 times per second to indicate Program Mode B-4, Fluorescent Mode. Default operation mode is incandescent/magnetic low voltage mode. To change from normal to fluorescent mode, use the DIM/BRIGHT Bar. Press and hold the right half of the DIM/BRIGHT Bar (A) until LED is lit (default setting is LED OFF). By tapping the Push Pad this setting will automatically be saved and device will exit Programming Mode B.



Pad

LED Brightness

Display

DIM/BRIGHT

Bar

Locator

Light



When indicator light is at LED #	Light out
7	100
6	97
5	95
4	90
3	85
2	80
1	75

FADE OFF	
0 seconds (instant)	
0.5 seconds	

0.5 seconds
1.5 seconds
3.0 seconds
6.0 seconds
10 seconds
25 seconds

TROUBLESHOOTING

- Lights Flickering
- Lamp has a bad connection.
- Wires not secured firmly with wire connectors of dimmer or terminal screws of remote
- If using in a dimmable fluorescent application see Advanced Programming Feature B-4.
- Light does not turn ON and Locator LED does not turn ON
- Circuit breaker or fuse has tripped.
- Lamp is burned out.
- Neutral not wired to Dimmer (White wire).
- Confirm that the device is being supplied from a 120V, 60 Hz AC source ONLY.
- Confirm that unit is programmed properly. Repeat "TO INSTALL" section to verify that it has been included in the Z-Wave® network. Intermittent dimmer operation
- Confirm that the Load being controlled does not exceed the 1000VA dimmer limit.
- Remote does not operate lights
- Ensure that total wire length does not exceed 300 ft. Ensure wiring is correct.
- LED bulb is illuminated even when off
- Replace the bulb with a different brand or a higher wattage rating.

For additional information, contact Leviton's Techline at 1-800-824-3005 or visit Leviton's website at www.leviton.com

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FCC COMPLIANCE STATEMENT

This device complies with Part 15 of the FCC Bules. Operation is subject to following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation of the device. This equipment has been tested and found to comply with the limits for a Class B Digital Device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment OFF and ON, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving Antenna.
- Increase the separation between the equipment and the receiver. Connect the equipment into an outlet on a circuit different from that to
- which the receiver is connected. Consult the dealer or an experienced radio/ty technician for help. FCC CAUTION

Any changes or modifications not expressly approved by Leviton Manufacturing Co., Inc., could void the user's authority to operate the equipment.

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For warranty information and/or product returns, residents of Canada should contact Leviton in writing at Leviton Manufacturing of Canada Ltd to the attention of the Quality Assurance Department, 165 Hymus Blvd, Pointe-Claire (Quebec), Canada H9R 1E9 or by telephone at 1-800-405-5320.

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